

CLAIMS

1. A receiver comprising:
 - a reception front end for receiving a plurality of pulse signals as
 - 5 a reception signal, wherein each one of the pulse signals has a pulse sequence generating time different from each other;
 - a delay circuit for generating a delay signal by giving a different delay time to at least every output signal from the reception front end; and
 - a delay pulse composition circuit for combining a first delay
 - 10 signal with a second delay signal or the output signal from the reception front end.
2. The receiver of claim 1, wherein the reception signal comprises a first pulse signal and a second pulse signal having a pulse sequence generating time
- 15 different from that of the first pulse signal.
3. The receiver of claim 1, wherein the reception front end comprises a first antenna and a second antenna.
- 20 4. The receiver of claim 3, wherein the first antenna outputs the reception signal as the reception front-end output signal, and the second antenna outputs given pulse signals out of the reception signal as the reception front-end output signal.
- 25 5. The receiver of claim 3, wherein a reception front-end output signal supplied from the second antenna delays from a reception front-end output signal supplied from the first antenna by a range between “ $n - (2/3)$ cycle” and

“ $n - (1/3)$ cycle” of the reception front-end output signal from the second antenna, where “ n ” is a natural number.

6. The receiver of claim 1 further comprising a distributing circuit for
5 distributing at least one of reception front-end output signals supplied from the reception front end.

7. The receiver of claim 6, wherein a coupler having a frequency
characteristics is used between the distributing circuit and the delay circuit or
10 between the delay circuit and the delay pulse composition circuit.

8. The receiver of claim 6, wherein a signal distributed by the
distributing circuit delays from a reception front-end output signal supplied
from an antenna by a range between “ $n - (2/3)$ cycle” and “ $n - (1/3)$ cycle” of the
15 reception front-end output signal, where “ n ” is a natural number.

9. The receiver of claim 1, wherein a first given pulse signal and a
second given pulse signal of the delay signal, or a given pulse signal of the
reception front-end output signal are used for reception and demodulation.
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10. The receiver of claim 4, wherein the pulse sequence generating time
of the second pulse signal is longer than that of the first pulse signal, and the
given pulse signal is the second pulse signal.

25 11. The receiver of claim 9, wherein the pulse sequence generating time
of the second given pulse signal is longer than that of the first given pulse
signal, and the given pulse signal is the second given pulse signal.

12. A transmitter comprising:

a control signal generating circuit for outputting a control signal
which generates a plurality of pulse signals having pulse sequence generating
5 times different from each other; and

a pulse generating circuit for generating the plurality of pulse
signals by using the control signal.

13. The transmitter of claim 12, wherein an oscillating circuit is used as
10 the pulse generating circuit.

14. The transmitter of claim 13, wherein the oscillating circuit is
frequency variable.

15 15. The transmitter of claim 13, wherein the oscillating circuit works
intermittently by using the control signal.

16. The transmitter of claim 12, wherein the transmitter generates at
least two signals having different pulse sequence generating times as the
20 plurality of pulse signals.

17. The transmitter of claim 12 further comprising a communication
state determining circuit for determining a communication state, wherein the
transmitter changes the pulse sequence generating time of the pulse signal
25 based on information about communication state determined by the
determining circuit.

18. The transmitter of claim 17, wherein the transmitter changes the pulse sequence generating time of the pulse signal to be shorter based on information about communication state determined good by the determining circuit.

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19. The transmitter of claim 17, wherein the transmitter changes the pulse sequence generating time of the pulse signal to be longer based on information about communication state determined poor by the determining circuit.

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20. The transmitter of claim 12, wherein a shorter pulse signal is used out of the pulse signals having different pulse sequence generating times from each other for communication between wireless devices of which communication state is good, and a longer pulse signal is used out of the pulse signals having
15 different pulse sequence generating times from each other for communication between wireless devices of which communication state is poor.

21. The transmitter of claim 12 further comprising an interference detecting circuit for detecting interference with other wireless devices, wherein
20 the pulse sequence generating time of the pulse signal is changed based on interference information detected by the detecting circuit.

22. The transmitter of claim 21, wherein the pulse sequence generating time of the pulse signal is changed to be longer based on information about
25 existing interference detected by the detecting circuit.

23. The transmitter of claim 21, wherein the pulse sequence generating

time of the pulse signal is changed to be shorter based on information about no interference detected by the detecting circuit.

24. A wireless system comprising a transmitter and a receiver for
5 receiving a signal supplied from the transmitter, wherein the transmitter includes:

a control signal generating circuit for outputting a control signal which generates a plurality of pulse signals having pulse sequence generating times different from each other; and

10 a pulse generating circuit for generating the plurality of pulse signals by using the control signal, and
the receiver includes:

a reception front end for receiving a plurality of pulse signals as a reception signal, wherein each one of the pulse signals has a pulse sequence
15 generating time different from each other;

a delay circuit for generating a delay signal by giving a different delay time to at least every one of output signals from the reception front end; and

a delay pulse composition circuit for combining a first delay
20 signal with a second delay signal or the reception front-end output signal.